2

AMENDMENTS TO THE CLAIMS

1. (currently amended) A method for controlling flow of requests and replies between a first one or more request-transmitting electronic device devices that each stores new and pending requests in an electronic memory and retrieves new and pending requests from the electronic memory for transmission, and a second one or more request-receiving electronic device devices that each accepts requests transmitted from the first one or more request-transmitting electronic device devices, transmitting back to the first one or more request-transmitting electronic device devices an ACK reply replies, and rejects requests transmitted from the first one or more request-transmitting electronic device devices, transmitting back to the first one or more request-transmitting electronic device devices a NAK reply replies, the method comprising:

storing by the first each request-transmitting electronic device a retry bit associated with each stored request;

storing by the second each request-receiving electronic device a retry vector containing bits corresponding to a first set of request-transmitting electronic devices from which the second request-receiving electronic device receives requests;

maintaining a copy in storage, by the first each request-transmitting electronic device, of each request until an ACK reply corresponding to the request is received by the second request-transmitting electronic device;

employing the retry bits associated with each stored request by the first each request-transmitting electronic device to mark requests for retransmission; and

employing the retry vector by the second each request-receiving electronic device to mark a second set of request-transmitting electronic devices that need to retransmit one or more rejected requests.

2. (currently amended) The method of claim 1 wherein, when the first each request-transmitting electronic device receives a NAK reply from the second a particular request-receiving electronic device:

when the request corresponding to the NAK reply is the oldest pending request directed to the ~~second~~ request-receiving electronic device, setting the retry bits of all subsequent requests directed to the ~~second~~ particular request-receiving electronic device and retransmitting the oldest pending request to the ~~second~~ particular request-receiving electronic device with a special marker bit; and

when the request corresponding to the NAK reply is not the oldest pending request directed to the ~~second~~ particular request-receiving electronic device, retransmitting the request to the ~~second~~ particular request-receiving electronic device without a special marker bit.

3. (currently amended) The method of claim 1 wherein, when each ~~second~~ request-receiving electronic device receives a request from ~~the first~~ a particular request-transmitting electronic device:

when the retry vector bit corresponding to the ~~first~~ particular request-transmitting electronic device is set and when no special marker bit is set in the request, sending a NAK reply back to the ~~first~~ particular request-transmitting electronic device; and

when the retry vector bit corresponding to the ~~first~~ particular request-transmitting electronic device is not set or a special marker bit is set in the request,

determining if the request can be processed by the ~~second~~ request-receiving electronic device,

when the request can be processed by the ~~second~~ request-receiving electronic device, resetting the retry vector bit corresponding to the ~~first~~ particular request-transmitting electronic device and sending an ACK reply back to the ~~first~~ particular request-transmitting electronic device, and

when the request cannot be processed by the ~~second~~ request-receiving electronic device, setting the retry vector bit corresponding to the ~~first~~ particular request-transmitting electronic device and sending a NAK reply back to the ~~first~~ particular request-transmitting electronic device.

4. (currently amended) The method of claim 1 wherein each ~~the first~~ request-transmitting electronic device stores new and pending requests in a source input queue.

5. (currently amended) The method of claim 1 wherein each ~~the first~~ request-transmitting electronic device is a source node and each ~~the second~~ request-receiving electronic device is a destination node within a computer system comprising interconnected and intercommunicating electronic devices.

6. (currently amended) The method of claim 1 wherein each ~~the first~~ request-transmitting electronic device is a producing node and each ~~the second~~ request-receiving electronic device is a destination node within a computer system comprising interconnected and intercommunicating electronic devices.

7. (currently amended) The method of claim 1 wherein each ~~the first~~ request-transmitting electronic device is a producing node and each ~~the second~~ request-receiving electronic device is a consuming node within a computer system comprising interconnected and intercommunicating electronic devices.

8. (currently amended) The method of claim 1 wherein each ~~the first~~ request-transmitting electronic device is a source node and each ~~the second~~ request-receiving electronic device is a consuming node within a computer system comprising interconnected and intercommunicating electronic devices.

9. (currently amended) The method of claim 1 wherein at least one ~~the first~~ request-transmitting electronic device ~~is~~ directly ~~connected~~ communicates ~~to~~ with at least one ~~the second~~ request-receiving electronic device ~~by~~ through ~~an~~ a single electronic communications medium.

10. (currently amended) The method of claim 1 wherein at least one ~~the first~~ request-transmitting electronic device ~~is~~ indirectly ~~connected to~~ communicates with at least one ~~the second~~ request-receiving electronic device ~~by~~ through a first electronic communications medium, a forwarding node, and a second electronic communications medium, ~~the first electronic communications connected to the first electronic device and the forwarding node,~~

~~and the second electronic communications medium connected to the forwarding node and the second electronic device~~.

11. (currently amended) The method of claim 1 wherein <u>at least one</u> ~~the first~~ <u>request-transmitting</u> electronic device ~~is~~ indirectly ~~connected to~~ <u>communicates with</u> <u>at least one</u> ~~the second~~ <u>request-receiving</u> electronic device ~~by~~ <u>through</u> a number of <u>different</u> electronic communications ~~media~~ <u>mediums</u> and forwarding nodes.

12. (currently amended) The method of claim 1 wherein <u>each</u> ~~the first~~ <u>request-transmitting</u> electronic device and <u>each</u> ~~second~~ <u>request-receiving</u> electronic device ~~are~~ <u>is a</u> bus interconnect ~~components~~ <u>component</u> within a computer system.

13. (currently amended) The method of claim 1 wherein each bit of ~~the~~ <u>each</u> retry vector corresponds to an electronic device, directly ~~connected to~~ <u>communicating with</u> ~~the second~~ <u>a</u> <u>request-receiving</u> electronic device, that can send requests to the ~~second~~ <u>request-receiving</u> electronic device.

14. (currently amended) The method of claim 1 wherein each bit of ~~the~~ <u>each</u> retry vector corresponds to a unique set of electronic devices that originate and forward requests to ~~the second~~ <u>a</u> <u>request-receiving</u> electronic device electronic device.

15. (currently amended) A system containing two ~~intercommunicating~~ electronic devices <u>that</u> <u>communicate through one or more communications mediums, the system</u> comprising:

a first electronic device that stores new and pending requests in an electronic memory and retrieves new and pending requests from the electronic memory for transmission;

a retry bit associated with each stored request within the first electronic device;

a second electronic device that accepts requests transmitted from the first electronic device, transmitting back to the first electronic device an ACK reply, and rejects requests transmitted from the first electronic device, transmitting back to the first electronic device a NAK reply; and

a retry vector maintained by the second electronic device containing retry vector bits corresponding to a set of each electronic devices device, from which the second electronic device receives requests, including the first electronic device, that need needs to retransmit one or more rejected requests.

16. (previously presented) The system of claim 15 further comprising:

control logic within the first electronic device that, when a request corresponding to a NAK reply is the oldest pending request directed to the second electronic device, sets the retry bits associated with all subsequent requests directed to the second electronic device and retransmits the oldest pending request to the second electronic device with a special marker bit.

17. (original) The system of claim 16 wherein, when a request corresponding to the NAK reply is not the oldest pending request directed to the second electronic device, the control logic retransmits the request to the second electronic device without a special marker bit.

18. (original) The system of claim 15 further comprising:

control logic within the second electronic device that receives a request from the first electronic device and, when the retry vector bit corresponding to the first electronic device is set and when no special marker bit is set in the request, sends a NAK reply back to the first electronic device.

19. (original) The system of claim 18 wherein, when the retry vector bit corresponding to the first electronic device is not set or a special marker bit is set in a received request, the control logic determines if the request can be processed by the second electronic device and, when the request can be processed by the second electronic device, resets the retry vector bit corresponding to the first electronic device and sends an ACK reply back to the first electronic device.

20. (original) The system of claim 19 wherein, when the request cannot be processed by the second electronic device, the control logic sets the retry vector bit corresponding to the first electronic device and sends a NAK reply back to the first electronic device.